ABSTRACT OF THE DISCLOSURE

A laser distance measuring apparatus, for measuring the distance between objects existing in two directions at least as seen from the apparatus by using laser light, comprises two projectors for projecting laser beams along a specified projection axis toward each one of the objects, a photo detector for receiving reflected light of projection from each object, a distance measurement processor for measuring the distance from a reference point of the apparatus to each object on the basis of the reception signal to the projection by the photo detector, and a distance calculation processor for calculating the distance between the objects on the basis of the distance data measured by the distance measurement processor and the angle formed by two projection axes, in which the projection axis by one projector is variable in angle with respect to the other projector. Therefore, the distance between objects can be measured easily and at high precision by one distance measuring operation only.